

IN THE CLAIMS:

1. (Currently Amended) Container configured to be filled with a beverage, which has a wall made of a thermoplastic material that contains at least one constituent that can be released at least from certain regions of the container to the beverage, wherein the constituent that can be released is present in the thermoplastic material in a concentration that is above the concentration that is allowable for the packaging of the beverages in standard plastic, wherein the wall is formed of a single-layer material and at least a portion of the inner surface of the wall of the container has a surface coating applied by a plasma process in such a way that a release rate of the constituent out of the thermoplastic material and through the surface coating in the direction of the interior of the container is realized which, at most, is equal to a release rate that would be realized with the use of a thermoplastic material which has a concentration of the constituent that can be released that is near the release rate of an uncoated standard material as well as without an inner coating, wherein the surface coating is applied as at least one layer of a silicon oxide of general formula SiO_x , and the surface coating is applied to the surface with the use of

an adhesion promoter, wherein the adhesive layer and the barrier layer together form a gradient layer in which, in a portion of the gradient layer facing the workpiece, a predominant portion of the adhesive promoter is contained in a portion of the gradient layer facing away from the workpiece and is contained in the predominant portion of the gradient layer facing away from the workpiece, and wherein a transition of the respective quantity within the gradient layer is present within the gradient layer continuously in accordance with a predeterminable gradient pattern, and wherein the adhesion promoter as well as the barrier material are applied on the workpiece by a plasma coating.

2. (Previously presented) Container in accordance with Claim 1, wherein the thermoplastic material consists at least partly of recycled material.

3. (Previously presented) Container in accordance with Claim 1, wherein the thermoplastic material has an acetaldehyde content of at least 10 ppm.

4. (Previously presented) Container in accordance with Claim 1, wherein the thermoplastic material contains a catalyst as one of its constituents.

5. (Previously presented) Container in accordance with Claim 1, wherein the surface coating is applied as a plasma coating.

6. (Previously presented) Container in accordance with Claim 1, wherein the surface coating is applied as at least one layer of a silicon oxide of general formula SiO_x .

7. (Previously presented) Container in accordance with Claim 1, wherein the container is shaped in the form of a bottle.

8. (Previously presented) Container in accordance with Claim 1, wherein the thermoplastic material consists at least partly of polyethylenterephthalat (PET).

9. (Previously presented) Container in accordance with Claim 1, wherein the surface coating is applied to the surface with the use of an adhesion promoter.

10. (Previously presented) Container in accordance with Claim 1, wherein the wall consists of a single-layer material.

11. (Withdrawn) Installation for producing preforms from a thermoplastic material, which has an injection-molding machine

with cavities for the preforms, wherein the injection-molding machine is coupled with a reactor for producing the thermoplastic material.

12. (Withdrawn) Installation in accordance with Claim 11, wherein at least one temporary storage tank for molten thermoplastic material be installed between the reactor and the injection-molding machine.

13. (Withdrawn) Installation in accordance with Claim 12, wherein the filling and emptying of the temporary storage tank is controlled by the reciprocating motion of a piston.

14. (Withdrawn) Installation in accordance with Claim 11, wherein the reactor is designed as a device for producing PET.

15. (Withdrawn) Installation in accordance with Claim 11, wherein the reactor has a mixing device for supplying a scavenger.

16. (Withdrawn) Installation in accordance with Claim 11, wherein at least two injection-molding machines are coupled with the reactor.

17. (Withdrawn) Installation in accordance with Claim 16, wherein injection-molding machines that are different from one another are coupled with the reactor.

18. (Withdrawn) Installation in accordance with Claim 11, wherein a mixing device for admixing plasticated recycled material is connected at a coupling between the reactor and the injection-molding machine.

19. (Withdrawn) Method for producing containers from a thermoplastic material, in which the plastic is produced in a reactor and then shaped into preforms by an injection-molding machine, and in which the preforms are formed into containers by blow molding, and then at least a portion of the inner surface of the containers is coated by a plasma coating process, wherein the reactor is directly connected to the injection-molding machine, and that the plastic produced by the reactor is fed from the reactor to the injection-molding machine in the form of a melt.

20. (Withdrawn) Method in accordance with Claim 19, wherein several injection-molding machines are supplied by a common reactor.

21. (Withdrawn) Method in accordance with Claim 19, wherein the reactor produces a polymer.

22. (Withdrawn) Method in accordance with Claim 19, wherein the reactor produces PET.

23. (Withdrawn) Method in accordance with Claim 19, wherein at least a portion of the plastic melt produced by the reactor is temporarily stored before it is processed by injection molding.

24. (Withdrawn) Method in accordance with Claim 19, wherein recycled material is admixed with the melt before the melt is injected into cavities of the injection-molding machine.

25. (Withdrawn) Method in accordance with Claim 19, wherein at least one scavenger is admixed with the material.